

291 5.1 5.2

HW Key

p226- 19-35, 21, 41-43, 47-52

p231- 16-21, 24, 27, 32, 37, 41, 47, 50

19. $b^{-3}b^7 = b^4$

21. $(z^2)^5 = z^{10}$

23. $(-2c)^3 = -8c^3$

25. $\frac{-y^5z^7}{y^2z^5} = -y^3z^2$

27. $(-3b^3c)(7b^2c^2) = -21b^5c^3$

29. $(-2r^2s)^3(3rs^2) = -8r^6s^3 \cdot 3rs^2 = -24r^7s^5$

31. $3a(5a^2b)(6ab^3) = 90a^4b^4$

33. $\frac{3a^5b^3c^3}{9a^3b^7c} = \frac{a^2c^2}{3b^4}$

35. $\frac{-12m^4n^8(m^3n^2)}{36m^3n} = \frac{-12m^7n^{10}}{36m^3n} = \frac{-m^4n^9}{3}$

42. $r + 5 = 2r - 1$
 $6 = r$

41. $\frac{12x^{-3}y^{-2}z^{-8}}{30x^{-6}y^{-4}z^{-1}} = \frac{12x^6y^4z}{30x^3y^2z^8} = \frac{2x^3y^2}{5z^7}$

43. $y^{28} = y^{3r+7}$
 $28 = 3r + 7$

$21 = 3r$

$7 = r$

p231

16. yes, 2 17. yes, 3 18. no 19. no 20. yes, 6

21. yes 7

$$24. 9r^2 + 6r + 16 - (8r^2 + 7r + 10)$$

$$r^2 - r + 6$$

$$27. (10x^2 - 3xy + 4y^2) - (3x^2 + 5xy)$$

$$7x^2 - 8xy + 4y^2$$

$$32. \frac{3}{4}x^2(8x + 12y - 16xy^2)$$

$$6x^3 + 9x^2y - 12x^3y^2$$

$$37. (p+6)(p-4)$$

$$p^2 + 2p - 24$$

$$41. (3x+8)(2x+6)$$

$$6x^2 + 18x + 16x + 48$$

$$6x^2 + 34x + 48$$

$$47. d^{-3}(d^5 - 2d^3 + d^{-1})$$

$$d^2 - 2 + \frac{1}{d^4}$$

$$50. (x^2 + xy + y^2)(x - y)$$

$$x^3 + x^2y + xy^2$$

$$-x^2y - xy^2 - y^3$$

$$x^3 - y^3$$